

INDIANA PROJECT WET



State Science Standards Correlation to Activities

Please use the following correlations of the Project WET activities to the Indiana State Science Standards for your planning needs.

Project WET provides workshops throughout the state, and they can be designed to meet your grade level or group needs.

Correlations will be available on line at:

projectwet.in.gov

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FOURTH GRADE

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Project WET Activities correlated to the Indiana State Science Standards

Page	Project WET Activity
3	Check It Out! Explore a variety of performance assessment strategies
7	Idea Pools Become familiar with pre-assessment strategies
9	Let's Work Together Use cooperative learning strategies
12	Water Action Propose, analyze, and implement action strategies
19	Water Log Assess student learning through a journal of portfolio
25	Adventures in Density Experiment with density and explore examples of density in classic literature
30	H₂Olympics Compete in a water Olympics to investigate adhesion and cohesion
35	Hangin' Together Mimic hydrogen bonding in surface tension, ice formation, evaporation, and solutions
43	Is There Water on Zork? Test the properties of water
47	Molecule in Motion Simulate molecular movement in water's three states
50	Water Match Match water picture cards and discover the three states of water
54	What's the Solution Solve a crime while investigating the dissolving power of water
63	Aqua Bodies Estimate the amount of water in a person, a cactus, or a whale
66	Aqua Notes Sing to discover how the human body uses water
72	Let's Even Things Out Demonstrate osmosis and diffusion
76	Life Box (The) Discover the elements essential to life
79	Life in the Fast Lane Explore Temporary wetlands
85	No Bellyachers Show how pathogens are transmitted by water by playing a game of tag
89	People of the Bog Construct a classroom bog
93	Poison Pump Solve a mystery about a waterborne disease
99	Salt Marsh Players Role-play organisms adapted to life in a salt marsh
107	Super Sleuths Search for others who share similar symptoms of a waterborne disease
116	Thirsty Plants Demonstrate transpiration and conduct a field study
122	Water Address Analyze clues to match organisms with water-related adaptations
129	Branching Out! Construct a watershed model
133	Capture, Store, and Release Use a household sponge to demonstrate how wetlands get wet and how they contribute to a watershed
136	Get the Ground Water Picture Create an "earth window" to investigate ground water systems
144	Geyser Guts Demonstrate the workings of a geyser
150	Great Stony book (The) Create layers of buried fossils and read a great stony book
155	House of Seasons (A) Create a collage that peeks through a "window" to reveal the role of water in each season
157	Imagine! Imagine a water molecule on its water journey
161	Incredible Journey (The) Simulate the movement of water through Earth's systems
166	Just Passing Through Mimic the movement of water down a slope

171	Old Water Create a mural that relates events to the age of Earth, water, and life
Page	Project WET Activity
174	Piece It Together Explore global climates and their influence on lifestyles
182	Poetic Precipitation Simulate cloud formation and express feelings toward precipitation through poetry
186	Rainy -Day Hike Explore schoolyard topography and its effect on the watershed
191	Stream Sense Develop sensory awareness of a stream
196	Thunderstorm (The) Simulate the sounds of thunderstorm and create precipitation maps
201	Water Models Construct models of the water cycle and adapt them for different biomes
206	Wet Vacation Plot data to determine weather patterns and design appealing travel brochures
212	Wetland Soils in Living Color Classify soil types using a simple color key
219	A-maze-ing Water Negotiate a maze to investigate nonpoint source pollution
223	Color Me a Watershed Interpret maps to analyze changes in a watershed
232	Common Water Demonstrate that water is a shared resource
238	Drop in the Bucket (A) Calculate the availability of fresh water on Earth
242	Energetic Water Design devices to make water do work
246	Great Water Journeys Use clues to track great water journey of plants, people, and other animals on a map
254	Irrigation Interpretation Model different irrigation systems
260	Long Haul (The) Haul water to appreciate the amount of water used daily
262	Nature Rules! Write news stories based on natural, water-related disasters
267	Sum of the Parts Demonstrate nonpoint source pollution
271	Water Meter Construct a water meter and keep track of personal water use
274	Water Works Create a web of water users
279	Where Are the Frogs Run a simulation and experiment to understand the effects of acid rain
289	AfterMath Assess economic effects of water-related disasters
293	Back to the Future Analyze streamflow data to predict floods and water shortages
300	CEO (The) Become a Chief executive Officer (CEO) and learn about business/corporate water management challenges
303	Dust Bowls and Failed Levees Witness, through literature, the effects of drought and flood on human populations
307	Every Drop Counts Identify and implement water conservation habits
311	Grave Mistake (A) Analyze data to solve a ground water mystery
316	Humpty Dumpty Simulate a restoration project by putting the pieces of an ecosystem back together
322	Macroinvertebrate Mayhem Illustrate, through a game of tag, how macroinvertebrate populations indicate water quality
328	Money Down the Drain Observe and calculate water waste from a dripping faucet
333	Price is Right (The) Analyze costs for building a water development project
338	Pucker Effect (The) Simulate ground water testing to discover the source of contamination
344	Reaching Your Limits "Limbo" to learn basic water quality concepts and standards development
348	Sparkling Water Develop strategies to clean wastewater

353	Super Bowl Surge Develop a strategy to accommodate the demands on a wastewater treatment plant
Page	Project WET Activity
360	Wet-Work Shuffle Sequence the water careers involved in getting water to and from the home
367	Choices and Preferences, Water Index Develop a "water index" to rank water uses
373	Cold Cash in the Icebox Create a mini-insulator to prevent an ice cube from melting
377	Dilemma Derby Examine differing values in resolving water resource management dilemmas
382	Easy Street Compare quantities of water used in the late 1800s to the present
388	Hot Water Debate water issues
392	Pass the Jug Simulate water rights policies with a "jug" of water
397	Perspectives Identify values to solve water management issues
400	Water: Read All About It! Develop a Special Edition on water
403	Water Bill of Rights Create a document to guarantee the right to clean and sustainable water resources
407	Water Concentration Play concentration and discover how water use practices evolve
413	Water Court Participate in a mock court to settle water quality and quantity disputes
421	Water Crossings Simulate a water crossing and relate the historical significance of waterways
425	What's Happening? Conduct a community water use survey
429	Whose Problem Is It? Analyze the scope and duration of water issues to determine personal and global significance
435	Raining Cats and Dogs Discover how water proverbs vary among culture and climates
442	Rainstick (The) Build an instrument that imitates the sound of rain
446	Water Celebration Organize a water celebration with activities from this guide
450	wAteR in motion Create artwork that simulates the movement and sound of water in nature
454	Water Message in Stone Replicate ancient rock art, creating symbols of water
457	Water Write Explore feelings about and perception of water topics through writing exercises
460	Wish Book Compare recreational uses of water in the late 1800s and the present

Fourth Grade

	The Nature of Science and Technology	Scientific Thinking	The Physical Setting	The Living Environment	The Mathematical World	Common Themes
ACTIVITY						
Adventures in Density (25)		4.2.5 4.2.7			4.5.4	
AfterMath (289)		4.2.4 4.2.5, 4.2.6				
A-maze-ing Water (219)		4.2.5				4.6.3
Aqua Bodies (63)	4.1.5	4.2.4 4.2.5				
Aqua Notes (66)			4.3.13			
Back to the Future (293)	4.1.5	4.2.4 4.2.7	4.3.5		4.5.4	
Capture, Store, & Release (133)	4.2.5	4.2.4 4.2.5 4.2.7				
Cold Cash in the Icebox (373)	4.1.5 4.1.7 4.1.8	4.2.4 4.2.5 4.2.7	4.3.13			
Common Water (232)		4.2.7				
A Drop in the Bucket (238)	4.1.5	4.2.4 4.2.1	4.3.3			
Easy Street (382)	4.1.7	4.2.4				
Energetic Water (242)	4.1.4 4.1.8	4.2.7		4.4.7		
Geyser Guts (144)		4.2.5 4.2.7	4.3.13 4.3.5, 4.3.6			4.6.1 4.6.3
H2O Olympics (30)	4.1.2 4.1.5	4.2.4 4.2.5 4.2.7				
Every Drop Counts (307)	4.1.5	4.2.1 4.2.4 4.2.5			4.5.4	
Hangin' Together (35)		4.2.5 4.2.7	4.3.13 4.3.16 4.3.5			
Humpty Dumpty (316)		4.2.5				4.6.1 4.6.2
Imagine! (157)		4.2.4 4.2.5	4.3.13			
The Incredible Journey (161)		4.2.5	4.3.13			
Irrigation Interpretation (254)				4.4.7		

	The Nature of Science and Technology	Scientific Thinking	The Physical Setting	The Living Environment	The Mathematical World	Common Themes
ACTIVITY						
Is there Water on Zork? (43)	4.1.5	4.2.5 4.2.7				
Just Passing Through (166)		4.2.7	4.3.5			
Let's Even Things Out (72)		4.2.5		4.4.1 4.4.7		
The Life Box (76)		4.2.7	4.3.2, 4.3.7 4.3.13			
Life in the Fast Lane (79)	4.1.5	4.2.4 4.2.5				
The Long Haul (260)	4.1.7			4.4.7		
Macro-invertebrate (322)		4.2.4				
Molecules in Motion (47)		4.2.5	4.3.13			
Money Down the Drain (328)	4.1.5	4.2.1 4.2.4				4.6.2 4.6.3
No Bellyachers (85)				4.4.10		
Old Water (171)		4.2.4			4.5.4	4.6.4
Pass the Jug (392)		4.2.7				
Piece It Together (174)		4.2.7	4.3.4 4.3.13			
Poetic Precipitation (182)	4.1.5	4.2.4 4.2.5 4.2.7				
Poison Pump (93)	4.1.4 4.1.7	4.2.4 4.2.6		4.4.10 4.4.11		
Rainy-Day Hike (186)	4.1.5 4.1.9	4.2.4, 4.2.5 4.2.6, 4.2.7				
Reaching Your Limits (344)	4.1.5	4.2.1 4.2.4 4.2.7				
Salt Marsh Players (99)		4.2.5	4.3.2 4.3.3			4.6.1 4.6.4
Sparkling Water (348)	4.1.7 4.1.9	4.2.5 4.2.7				4.6.1
Stream Sense (191)		4.2.5				
Sum of the Parts (267)	4.1.9	4.2.7 4.2.6				

	The Nature of Science and Technology	Scientific Thinking	The Physical Setting	The Living Environment	The Mathematical World	Common Themes
ACTIVITY						
The Thunderstorm (196)		4.2.1 4.2.4				
Water Address (122)		4.2.5 4.2.6				
Water Concentration (407)	4.1.7	4.2.5 4.2.6 4.2.7		4.4.7		
Water Crossings (421)	4.1.2 4.1.5 4.2.7	4.2.6				4.6.3
Water Log (19)		4.2.5				
wAteR in moTion (450)		4.2.7				4.6.1
Water Messages (454)	4.1.3			4.4.8		
Water Meter (271)		4.2.1 4.2.4				
Water Models (201)	4.1.5	4.2.4 4.2.5 4.2.7	4.3.2 4.3.13			
Water Works (274)	4.1.9	4.2.5 4.2.7			4.5.4	
Wet-Work Shuffle (360)	4.1.3 4.1.5 4.1.7	4.2.5				4.6.1
Wetland Soils (212)		4.2.4 4.2.5, 4.2.7				
What's Happening? (425)	4.1.3	4.2.4 4.2.5 4.2.6, 4.2.7				
What's the Solution? (54)		4.2.5 4.2.7	4.3.16			

Standard 1

The Nature of Science and Technology

Students, working collaboratively, carry out investigations. They observe and make accurate measurements, increase their use of tools and instruments, record data in journals, and communicate results through chart, graph, written, and verbal forms.

Scientific Inquiry

- 4.1.2 Recognize and describe that results of scientific investigations are seldom exactly the same. If differences occur, such as a large variation in the measurement of plant growth, propose reasons for why these differences exist, using recorded information about investigations.

WET Activities (page): 30, 421

The Scientific Enterprise

- 4.1.3 Explain that clear communication is an essential part of doing science since it enables scientists to inform others about their work, to expose their ideas to evaluation by other scientists, and to allow scientists to stay informed about scientific discoveries around the world.

WET Activities (page): 360, 421, 425, 454

- 4.1.4 Describe how people all over the world have taken part in scientific investigation for many centuries.

WET Activities (page): 93, 242

Technology and Science

- 4.1.5 Demonstrate how measuring instruments, such as microscopes, telescopes, and cameras, can be used to gather accurate information for making scientific comparisons of objects and events. Note that measuring instruments, such as rulers, can also be used for designing and constructing things that will work properly.

WET Activities (page): 30, 43, 63, 79, 182, 186, 201, 238, 293, 307, 344, 360, 373, 382, 421

- 4.1.7 Discuss and give examples of how technology, such as computers and medicines, has improved the lives of many people, although the benefits are not equally available to all.

WET Activities (page): 93, 260, 348, 360, 373, 382, 407

- 4.1.8 Recognize and explain that any invention may lead to other inventions.

WET Activities (page): 242, 373

- 4.1.9 Explain how some products and materials are easier to recycle than others.

WET Activities (page): 186, 267, 274

Standard 2

Scientific Thinking

Students use a variety of skills and techniques when attempting to answer questions and solve problems. They describe their observations accurately and clearly, using numbers, words, and sketches, and are able to communicate their thinking to others. They compare, explain, and justify both information and numerical functions.*

Computation and Estimation

- 4.2.1 Judge whether measurements and computations of quantities, such as length, area*, volume*, weight, or time, are reasonable.

WET Activities (page): 196, 238, 271, 307, 344, and 382

Communication Skills

- 4.2.4 Use numerical data to describe and compare objects and events.

WET Activities (page): 30, 63, 79, 93, 133, 157, 171, 182, 186, 196, 201, 212, 238, 271, 289, 293, 307, 322, 344, 373, 382, 425

- 4.2.5 Write descriptions of investigations, using observations and other evidence as support for explanations.

WET Activities (page): 25, 19, 30, 35, 43, 54, 63, 72, 74, 79, 99, 122, 133, 144, 157, 161, 182, 186, 191, 201, 212, 219, 274, 289, 307, 316, 348, 360, 373, 407, 425

Critical Response Skills

- 4.2.6 Support statements with facts found in print and electronic media, identify the sources used, and expect others to do the same.

WET Activities (page): 93, 122, 186, 267, 289, 407, 421, 425

- 4.2.7 Identify better reasons for believing something than “Everybody knows that ...” or “I just know,” and discount such reasons when given by others.

WET Activities (page): 25, 30, 35, 43, 54, 76, 133, 144, 166, 174, 182, 186, 201, 212, 232, 242, 267, 274, 293, 344, 348, 373, 392, 407, 425, 450

Standard 3

The Physical Setting

Students continue to investigate changes of Earth and the sky and begin to understand the composition and size of the universe. They explore, describe, and classify materials, motion, and energy*.*

The Earth and the Processes That Shape It

- 4.3.2 Begin to investigate and explain that air is a substance that surrounds us, takes up space, and whose movements we feel as wind.
WET Activities (page): 76, 99, 201
- 4.3.3 Identify salt as the major difference between fresh and ocean waters.
WET Activities (page): 99, 238
- 4.3.4 Describe some of the effects of oceans on climate.
WET Activities (page): 174
- 4.3.5 Describe how waves, wind, water, and glacial ice shape and reshape Earth's land surface by the erosion* of rock and soil in some areas and depositing them in other areas.
WET Activities (page): 35, 144, 166, 293
- 4.3.6 Recognize and describe that rock is composed of different combinations of minerals.
WET Activities (page): 144
- 4.3.7 Explain that smaller rocks come from the breakage and weathering of bedrock and larger rocks and that soil is made partly from weathered rock, partly from plant remains, and also contains many living organisms.
WET Activities (page): 76

Matter* and Energy

- 4.3.13 Observe and describe that things that give off heat, such as people, animals, and the sun.
WET Activities (page): 35, 66, 74, 76, 144, 157, 161, 174, 201, 373

Forces of Nature

- 4.3.16 Investigate and describe that without touching them, material that has been electrically charged pulls all other materials and may either push or pull other charged material.
WET Activities (page): 35, 54

Standard 4

The Living Environment

Students learn about an increasing variety of organisms — familiar, exotic, fossil, and microscopic. They use appropriate tools in identifying similarities and differences among them. They explore how organisms satisfy their needs in their environments.

Diversity of Life

- 4.4.1 Investigate, such as by using microscopes, to see that living things are made mostly of cells.
WET Activities (page): 72

Human Identity

- 4.4.7 Describe that human beings have made tools and machines, such as x-rays, microscopes, and computers, to sense and do things that they could not otherwise sense or do at all, or as quickly, or as well.

WET Activities (page): 72,242,254,260,407

- 4.4.8 Know and explain that artifacts and preserved remains provide some evidence of the physical characteristics and possible behavior of human beings who lived a very long time ago.

WET Activities (page): 454

- 4.4.10 Explain that if germs are able to get inside the body, they may keep it from working properly. Understand that for defense against germs, the human body has tears, saliva, skin, some blood cells, and stomach secretions. Also note that a healthy body can fight most germs that invade it. Recognize, however, that there are some germs that interfere with the body's defenses.

WET Activities (page): 85,93

- 4.4.11 Explain that there are some diseases that human beings can only catch once. Explain that there are many diseases that can be prevented by vaccinations, so that people do not catch them even once.

WET Activities (page): 93

Standard 5

The Mathematical World

Students apply mathematics in scientific contexts. Their geometric descriptions of objects are comprehensive. They realize that graphing demonstrates specific connections between data. They identify questions that can be answered by data distribution.

Shapes and Symbolic Relationships

- 4.5.4 Demonstrate how graphical displays of numbers may make it possible to spot patterns that are not otherwise obvious, such as comparative size and trends.

WET Activities (page): 25,171,274,293,307

Standard 6

Common Themes

Students work with an increasing variety of systems and begin to modify parts in systems and models and notice the changes that result. They question why change occurs.

Systems

- 4.6.1 Demonstrate that in an object consisting of many parts, the parts usually influence or interact with one another.

WET Activities (page): 99,144,316,348,360,450

- 4.6.2 Show that something may not work as well, or at all, if a part of it is missing, broken, worn out, mismatched, or incorrectly connected.

WET Activities (page): 316,382

Models and Scale

- 4.6.3 Recognize that and describe how changes made to a model can help predict how the real thing can be altered.

WET Activities (page): 144,219,382,421

Constancy and Change

